



**USAID**  
FROM THE AMERICAN PEOPLE

**AFGHANISTAN**

Date: June 2011

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# FACT SHEET

## Reactive Power Compensation

### OVERVIEW

The ultimate goal of the North East Power System (NEPS) is to transmit reliable and affordable energy from northern Afghanistan, Turkmenistan, Uzbekistan, and Tajikistan to Kabul and northeastern Afghanistan. Industrial, commercial, and residential demand for electricity is expected to surge, and even now generation capacity around Kabul is falling short of current demand projections. The imported amount of power will increase by enhancing the industrial, commercial and residential loads.

The integrated NEPS will require reactive power compensation (RPC) to support power imports from neighboring countries, provide system voltage and operating stability, and control reactive power losses. System studies recommend the installation of RPC equipment, including reactor banks and capacitors, at four existing substations and switching stations located in Kabul, Baghlan (Pol-i-Khomri), and Balkh (Naibabad, Kholam). Through this project, USAID will procure and install reactors and capacitors for the above mentioned substations and switching stations along NEPS. Upon completion, the NEPS voltage level will be maintained within established system operating limits, system losses will be minimized, and power transmitted for NEPS from all resources will be maximized. USAID closely coordinated with the national utility - Da Afghanistan Brishna Sherkat and the Ministry of Energy and Water in regard to scheduling system outages, productive completion of the project and resolving technical and nontechnical issues.

### CURRENT ACTIVITIES

- Installation of capacitor and reactor banks and auxiliary equipment concurrently at the northern sites of Pol-i-Khomri substation and Naibabad switching stations
- Commissioning of capacitor banks at southern sites (Chemtala and Kabul North substations) are in progress
- Training project local national staff in capacity building to enable successful operation of equipment is currently in progress

### ACCOMPLISHMENTS

- Completed factory acceptance test of capacitors
- Shipped all electrical and auxiliary equipment of RPC to Afghanistan
- Completed all foundations, cable trenches, steel erection, and cable trays installation at the four sites
- Installed capacitor and reactor banks and auxiliary equipment at southern sites (Kabul North and Chemtala substations)